Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
New Part 4 of the Commission's Rules	)	
Concerning Disruptions to	)	ET Docket No. 04-35
Communications	)	

Directed to: The Commission

COMMENTS

Iridium Satellite LLC (ISLLC), operator of the Iridium System, a mobile satellite service (MSS) system providing voice and data globally using a constellation of 66 low Earth orbiting (LEO) satellites in non-geostationary orbit (NGSO) with 13 on orbit spares, hereby respectfully submits its comments[1] in the above-referenced proceeding:

ISLLC commends the Commission for its recognition of the critical need for rapid, full, and accurate information on service disruptions that could affect homeland security, public health and safety, and the economic well-being of the Nation. It is timely and appropriate for the Commission in this context to recognize the increasing importance of non-wireline, especially satellite, communications in the Nation's communications networks and critical infrastructure.

While ISLLC agrees with the Commission that there should be reporting of network outages by non-wireline communications, ISLLC has substantial concerns and reservations about the Commission's proposed reporting requirements for satellite

[1] ISLLC directs its comments principally to the proposed requirements for satellite communications and assumes that the discussions of wireless communications in the NPRM, unless otherwise noted, refer to terrestrial wireless networks.

network operators and/or service providers, particularly as they would require the electronic filing to the Commission of specific information that would thereafter be publicly and easily accessible. While such requirements may improve the processes by which information is collected by the Commission, ISLLC fears that such requirements will actually be counter-productive to homeland security and public health and safety interests. Network outage reporting, at least by satellite operators and/or service providers, should be voluntary and done in a manner that maintains strict confidentiality of reported information unless the network operator and/or service provider agrees with the Department of Homeland Security (DHS) and/or the FCC and any other affected U.S. government agency that public disclosure is necessary and agrees on the information that should be disclosed.

Introduction

In recognition of the critical need for rapid, full, and accurate information on service disruptions that could affect homeland security, public health and safety, as well as the economic well-being of our Nation, and in view of the increasing importance of non-wireline communications in the Nation's communications networks and critical infrastructure, the Commission has proposed to extend its disruption reporting requirements to communications providers that are not wireline carriers, including satellite operators.[2] The Commission's NPRM discusses the need for expanded communications disruptions reporting, particularly in light of growing concerns over homeland security and the public health and safety and the almost total dependence of our Nation on communications services.

[2] See Notice of Proposed Rule Making in ET Docket No. 04-35 (released February 23, 2004)(*NPRM*) at ¶1.

As the NPRM recognizes, the use of satellite communications decreases the vulnerabilities that are associated with relying exclusively on fixed, terrestrial facilities with the consequence that satellite communications are now an important supplement to Homeland Security related communications. The NPRM recognizes that commercial satellite communications have emerged as a significant part of our national communications infrastructure and are anticipated to play an ever-increasing role in providing important services to the military, to emergency responders, to other providers of communications services for restoration purposes, and to personnel who are involved in Homeland Defense and Security and emergency preparedness functions.[3]

Given the increased role played by satellites in our Nation's communications infrastructure, and the likelihood that the importance of satellite communications will grow substantially in the future, the Commission proposes to eliminate the satellite exemption in its outage reporting rules and proposes to require disruption reporting that recognizes the unique attributes of satellite communications.[4] However, it is precisely because of the unique attributes of satellite communications and the increased threats to our homeland security and public health and safety that ISLLC opposes the mandatory outage reporting requirements proposed for satellite operators and/or service providers in the NPRM and the intention to make information reported thereunder publicly and electronically available.

In times of crisis, when the wireline and terrestrial networks are under attack or fail for other reasons, as happened on September 11, 2001, it is the satellite networks

[3] *NPRM* at ¶¶ 16-17.

[4] Id.

that are less susceptible, almost invulnerable to such attacks and may provide (as they did on September 11) the only communications services available. Moreover, U.S. commercial satellite operators and service providers carry a substantial amount of U.S. Government and military traffic.[5] It would seem contrary to the National interest to require public disclosure of any vulnerabilities of such systems, except possibly for historical purposes long after the disclosure of such vulnerabilities could offer useful information to our adversaries.

Network Outage Reporting For Satellites Should Be Voluntary

ISLLC does not oppose the reporting of outage information, as long as it can be done on a voluntary basis, to the government agency that needs to know the information, in a way that will keep the information reported confidential unless and until the government and the satellite operator or service provider reach agreement on what and how such information will be disclosed. Recognizing industry's desire for a voluntary reporting regime, the Commission at the outset of its NPRM seeks comment as to how a voluntary service disruption reporting process would assure the Commission that accurate, useful and complete reports would be filed dependably, even during periods of high service disruption and/or management turnover.[6] In particular, the Commission seeks comment on possible ways to ***assure voluntary*** reporting of all major outages. ISLLC supports a voluntary reporting regime for satellite

[5] The U.S. DOD, for example, has a dedicated gateway in the Iridium system and has a substantial contract whereby it uses the Iridium System for dedicated, secure communications. A requirement that ISLLC or an Iridium service provider furnish information concerning outages that could be released intentionally or unintentionally to the public would be harmful to the safety and security of the end users and would afford adversaries an opportunity to exploit such outages as vulnerabilities—real or perceived.

[6] *NPRM* at ¶ 12.

services and suggests that the best way to ensure voluntary reporting of outage information is to ensure the confidentiality of the information disclosed.

The Information Collected From Satellite Networks Should Be Limited To Reports of Outages in Service to Users in the U.S.

In its NPRM, the Commission observes that the timely provision of outage information by communications providers, their affiliates, and those who maintain or provide communications systems on their behalf, should provide sufficient information to facilitate the prompt discovery of outage and reliability problems that occur within, and across, communications networks and that, as a consequence, communications failures (particularly catastrophic failures) should become more easily preventable, and information accumulated through the outage reporting process should further facilitate efforts by communications providers to discover potential vulnerabilities in their own systems. To the extent that the Commission seeks outage reporting information for these and other purposes, i.e., to develop and refine industry "best practices," there is little to be gained from requiring specific information from individual satellite systems, since the systems and satellites differ greatly from terrestrial services and even from each other, as will be seen when the various comments in this proceeding are compared. In this regard, the experiences of the wireline industry are not relevant or instructive.

ISLLC agrees with Globalstar LLC (Globalstar), which in its Comments in this proceeding filed on this date notes that in its NPRM "[t]he Commission has clearly articulated the goal for reporting service *outages*. But, it has not articulated a reason for tracking mere equipment failures that do not result in communications service outages."

ISLLC agrees with Globalstar that any satellite outage reporting requirement should be for service outages—not for equipment failures that do not result in service outages.

Thus, ISLLC opposes the NPRM's proposal[7] to require the reporting of any loss of complete accessibility to a satellite or any of its transponders for 30 minutes or more. While this requirement may make sense with respect to a geo-stationary satellite, as Globalstar's Comments filed on this date illustrate the loss of complete accessibility to a satellite in NGSO orbit does not translate to a loss of service to potential users for 30 minutes. The Iridium System architecture differs from the Globalstar System architecture, but the point is the same. The loss of one satellite in an NGSO constellation even for 30 minutes or more is not *de facto* a "major infrastructure failure." For example, in the event of a sporadic outage, an Iridium satellite may in effect re-boot itself within a few minutes and correct the outage; in which event any user would be without service for at most a period of four to eight minutes until the next satellite comes into view. Even in the event of a permanent, catastrophic loss of a satellite, all users of the system in the U.S. (and everywhere) would at most experience four separate outages in any 24 hour period, each lasting at most four to eight minutes; and, within a matter of days, one of the on-orbit spares would replace the failed satellite. So there is no reason for a requirement to report the loss of a single satellite in an NGSO constellation for 30 minutes or more, absent a corresponding substantial loss of service.

As for the proposed common metric, ISLLC theoretically has no objection to the common metric proposed; however, ISLLC does not know how many users are within a satellite's footprint at any moment in time and assumes that other MSS operators would

[7] *NPRM* at ¶ 43.

have similar difficulties in applying the metric. Moreover, the proposed metric should be clarified for LEO satellites so that it is clear that only applies when the same group of users affected experience the same outage continuously for the same period of time.

ISLLC agrees that any requirement for filing an initial outage report should contain contact information so that additional information can be obtained if necessary.[8] ISLLC also agrees that timely filed initial reports may be helpful in determining whether an immediate response is required (*e.g.*, terrorist attacks or systemic failures) and whether patterns of outages are emerging (*e.g.,* phased terrorist attacks) that warrant further coordination or other action. However, ISLLC opposes and finds no reason for a requirement for final disruption reports with respect to satellite operators and service providers and particularly opposes the Commission's proposal to modify its requirements to include,[9] at least with respect to satellites, the following information:

- A statement as to whether the reported outage was at least partially caused because the network did not follow engineering standards for full diversity (redundancy); and
- A statement of all of the causes of the outage.

This information can serve no useful purpose and should not be required of satellite operators and service providers, for the purposes stated above.

Moreover, as the NPRM recognizes, Part 25 of the Commission's Rules provides that certain satellite licensees file annual reports that contain some information on outages and that MSS Ancillary Terrestrial Component (ATC) licensees report certain outages within 10 days of their occurrence. These rules were adopted to provide the Commission with information necessary to assess the commercial and technical

[8] *See NPRM* at ¶ 16.

[9] *See NPRM* at ¶ 31.

development of satellite services, including the efficiency of spectrum utilization by satellite licensees, and, in the case of MSS ATC licensees, to ensure that the terrestrial use of spectrum remains ancillary to satellite use.[10] Thus, the Commission is already collecting ample information on satellite outages from MSS licensees.

Electronic Filing and Confidentiality of Reports

The NPRM also proposes to require that communications outage reports be filed electronically with the Commission. Among the major advantages for the Commission in electronic filing, the NPRM stresses the availability of such information to the public, which would be able to access initial and final report information more easily and more quickly.[11] Even so, the Commission requests comment on whether there are any circumstances under which electronic filing would not be appropriate. ISLLC opposes making outage information available to the public, and ISLLC therefore opposes filing it and making it available electronically unless and until procedures are in place to ensure that such information cannot ever be intentionally or unintentionally released to the public. The Commission should decide in this proceeding that outage reports will be held as confidential and not subject to disclosure for the reasons stated above.

CONCLUSION

For the foregoing reasons and as stated above, ISLLC opposes the imposition of mandatory outage reporting requirements on satellite network operators and service

[10] *See id.* at ¶ 44.

[11] *Id.* at 26.

providers and opposes the public release of any and all information on outages reported by satellite networks and service providers.

Respectfully submitted,

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